

## ABSTRACT

**ELECTRONIC DEVICES COMPRISING THIN-FILM TRANSISTORS, AND  
THEIR MANUFACTURE**

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This invention relates to the fabrication of thin-film transistors (TFTs) on a substrate (4) such as a glass or insulating polymer substrate for use in an active-matrix liquid-crystal display or other large area electronic device. A method of forming a TFT is described which includes the deposition of a masking layer (8) over a semiconductor film (2) and the removal of portions of the masking layer (8) to form a plurality of holes therethrough of a predetermined size and distribution. The perforated portion (26,28) of the masking layer (8) serves to mask partially the semiconductor film (2) during a dopant implantation step to form a field relief region (20,22) simultaneously with definition of the source and drain regions (16,18).

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[Figure 1C]